DOCUMENT RESUME

ED 173 810 CS 204 958

AUTHOR Elliott, M. E.; Washburn, W. V.
TITLE Small Group Talk and Reading Comprehension. Language in the Classroom: A Series. 2.
INSTITUTION Calgary Univ. (Alberta). Faculty of Education.
PUB DATE 77
NOTE 25p.; For related documents, see CS 204 957-966; Poem removed
AVAILABLE FROM Language in the Classroom Project, Room 706, EDCI, Faculty of Education, University of Calgary, Calgary, Alberta, Canada ($1.00 per copy; set of 10, $9.00, enclose payment with order)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Communication (Thought Transfer); *Discussion (Teaching Technique); Expressive Language; *Group Discussion; Group Dynamics; Interaction; Interaction Process Analysis; Language Usage; Learning Processes; Linguistics; *Reading Comprehension; Reading Research; Secondary Education; *Self Directed Groups; Student Teacher Relationship; Teacher Role
IDENTIFIERS *Oral Language

ABSTRACT

This pamphlet is the second in a series of ten stemming from the view that language is central to learning, that teachers can gain insights into their work and into learning by examining the language of the classroom, and that current language theory can be the means to such insights. The pamphlet contains a description of a study designed to discover how talk enabled four secondary school students to comprehend the meaning embedded in difficult readings. It includes the procedures followed; selections from transcripts emphasizing the successful techniques used by the students, as well as the problems they encountered, in a discussion of a prose work; and selections from a transcript of a discussion of a poem in which the teacher participated. Among the results cited are that shared personal experiences led to relevancy; that through use, vocabulary was internalized; and that students relied on each other rather than on an authority to discover meaning. Other findings reported are that an apparent nonparticipant in the discussions actually played an active role and that the students' attempts at word analysis sometimes led to confusion. The prose selection and the poem used for the study are appended. (FL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED173810

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Language in the Classroom: A Series. 2

SMALL GROUP TALK AND READING COMPREHENSION

M. M. Elliott

W. V. Washburn

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Merron Chorny

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS204958

Published by: Language in the Classroom Project and
Department of Curriculum and Instruction,
University of Calgary

First edition April 1977
© 1977 the Project Team

Titles in the Series

1. Telling, Talking, and Thinking in a Grade Two Classroom
2. Small Group Talk and Reading Comprehension
3. Some Dimensions of Expressive Language
4. Talking, Writing and Learning
5. Students Speak Out
6. A Learning Triangle
7. The Energy of Talk
8. Language Development in the Spectator Role
9. Mediating Science Experience Through Talk
10. Language in the Center

Price: One dollar per copy. Set of ten: nine dollars
Please enclose payment with orders.

Obtainable from: Language in the Classroom Project
Room 706
EDCI
Faculty of Education
University of Calgary
Calgary, Alberta, Canada

FOREWORD

This pamphlet is one of a series, produced as discussion papers by a group of teachers who participated in a graduate course in the Department of Curriculum and Instruction at the University of Calgary. In development, the papers reflect the method of the boys of Barbiana: each paper has been shaped and tempered, through several stages by the input of the group. In intent, the series reflects the aims of the pamphlets originated by the Writing Across the Curriculum Project Team of the Institute of Education at the University of London, to whom we are indebted for pointing the way.

The series stems from a view that language is central to learning, that teachers can gain insights into their work and into learning by examining the language of the classroom, and that current language theory can be the means to such insights. Further, the series represents a conviction that teachers are in the best position to understand the heuristic role of language in the classroom as well as to assess the needs of children in the schools and that they are the most likely to find solutions for problems in classroom practice. To realize this potential and to extend their influence, teachers need to offer their ideas and experiences freely and be willing to consider the ideas of their colleagues openly. It is in this spirit of sharing that these pamphlets are published.

We are grateful to Al Kahanoff, Principal of Branton Junior High School in Calgary for his generous editorial assistance and for his help in seeing the pamphlets through publication.

We also wish to thank Miss Lorraine Cockle for the cover design.

James Britton
Merron Chorny

Foreword

It is hoped that the thoughts expressed in this paper might promote discussion amongst teachers of secondary schools concerning the role small group talk might play in aiding students to the comprehension of difficult reading material.

SMALL GROUP TALK AND READING COMPREHENSION

> "We next went to the School of Languages, where three Professors sat in Consultation upon Improving that of their own Country.
>
> The first Project was to shorten Discourse by cutting Polysyllables into one, and leaving out Verbs and Participles; because in Reality all things imaginable are but Nouns.
>
> The other, was a Scheme for entirely abolishing all Words whatsoever: And this was urged as a great Advantage in Point of Health as well as Brevity. For, it is plain, that every Word we speak is in some Degree a Diminution of our Lungs by Corrosion; and consequently contributes to the shortening of our Lives. An Expedient was therefore offered, that since Words are only Names for Things, it would be more convenient for all Man to carry about them, such Things as were necessary to express the Particular Business they are to discourse on."
>
> Swift: Gulliver's Travels

The marvellous absurdity of Swift's words was, we suppose, meant to show us how far some contemporaries of his had marched into quagmires of unrewarding research. But it also points out the centrality of speech to our coming to terms with meanings; the Things we would find ourselves lugging about if we were to use them as our sole medium of expression would require each of us to have the strength of Atlas to bear them. And, as a teacher, I'm already tired. Recent research into the role of talk in the learning and comprehension of humans has produced very rewarding findings. These lead us to believe, amongst other things, that there is an important role for small group discussion as our students deal with difficult problems.

Douglas Barnes, for instance, tells us

> "When we played back to teachers tapes of their pupils working in small groups, their reactions were commonly of surprise and delight. They were surprised because the quality of the children's discussions typically far exceeded the calibre of their contributions in class; and were pleased to hear the children manifesting unexpected skills and competences."1

Such findings as those of Barnes have encouraged many teachers to include small group discussion as a part of their programmes. Some of us feel we have had good results and that students have grown because of their experiences; others feel that small group talk is a waste of time that could better be used for the ingestion of concepts from direct teaching. In either case, without definite evidence that small group talk is beneficial to the learning of students, it is a risky business to foster such activities. The noise alone is enough to stab panic into the breasts of some administrators as well as wrath and notions of revenge into the hearts of neighbouring teachers.

A few years ago we noticed that some secondary school students with reading problems, who were unable to cope with difficult material when working by themselves, when working in small groups were able to interpret the same material more easily. These small groups worked, for the most part, independent of teachers. We were moved by these observations to attempt to discover how talk enables students to comprehend the meanings embedded in

---

1. Barnes, Douglas and Todd, Frankie, Making Sense Together: Children Learning in Small Groups, Institute of Education, University of Leeds, March, 1975, page 3.

difficult reading. We wondered, amongst other things, how much time students would 'waste' in talking about subjects other than the ones assigned, to what extent previously taught 'reading skills' would play major roles in students' comprehensions, whether or not all students would participate in discussions, and how much instruction and preparation is advisable prior to leaving students to themselves.

Procedure

The following procedure was agreed upon.

1. A group of four grade twelve students was selected on the basis of the students' inability to read well.
2. The students were asked to read the article, "From Experience to Symbol". (Semantics and Communication, Condon, Jr., John C., Macmillan Company, 1966, pp. 11 - 13.)[2]
3. The students were asked to discuss the article with the object of obtaining as much meaning from it (or putting as much meaning into it) as possible. They were asked to attack the article in any way they saw fit and to relate it to their own lives.
4. The students were then left alone with a tape recorder and asked to start the recorder when they were ready to start their talk.
5. The tape was transcribed and analyzed.

Later, the same four students were given W.B. Yeats' poem, The Second Coming[3] for discussion. The same procedure was used as is outlined for

---

2. See Appendix A for a copy of "From Experience to Symbol".
3. See Appendix B for a copy of The Second Coming.

their discussion of "From Experience to Symbol".

We were interested in discovering the ways in which the students arrived at meaning. Analysis of the tapes and the transcriptions reveals to some extent the successful techniques the students used. As well, it indicates a number of problems they encountered and the failures they experienced. Both of these are outlined.

Beginning the Discussion

This is how the students went about organizing their discussion.

JEAN: First paragraph.

MIKE: No. Hold it. We're going to do it sentence by sentence.

JEAN: That's right. First paragraph. We'll take the first sentence of the first paragraph.

NORM: And then we're going to summarize the whole thing.

JEAN: Right.

MIKE: Thank you. Okay. Somebody read the first sentence.

JEAN: (reading) 'Like anything else of value, language is best used when it is best understood.'

MIKE: Well everybody knows what that means. Right?

NORM: It's straight forward.

MIKE: Yeah. Okay. Second.

The students begin with a brief discussion concerning their method of attack. They decide quickly on a sentence by sentence approach. In later discussion they revealed that they had not read the article through prior

to commencing the talk about it.[4] This would indicate that one of the basic reading techniques taught throughout later elementary, junior and senior high school, the SQ3R formula, has not been deemed useful in this case. The SQ3R would have the students Survey the material, formulate purpose Questions, Read, Recite, and Review. At least the survey and the formulation of purposes would have been useful, we think, for throughout the sentence by sentence approach problems were encountered that would have been made easier had the students previously decided on the general purpose of the essay.

At the same time, it is interesting to note how quickly the students get on with the task of organization and how supportive they are of one another in deciding how to start. They set out with the sense of a task to be completed and continue in this vein, using talk to help each other keep to the topic and move the discussion along.

Sharing personal experience leads to relevancy

In the small group, with the teacher not present to direct discussion along a main line (as he sees it), students are willing, and have freedom, to explore areas that are personally relevent. They are willing to expose themselves, their feelings, thoughts, ideas and desires. There appears to be a natural excitment with regard to their revelations and subsequent discoveries. In the following exerpt, they attempt to give meaning to the term 'symbolism'.

---

4. Another group to whom the same task has been given appointed one of their members to read the passage aloud. Another group decided to read the article by rotating oral reading around the group, paragraph by paragraph.

MIKE: No, it means that as soon as something has got a fixed name on itself is somebody eventually called a table a table...

LINDA: Yeah.

MIKE: Once it got the name of table stuck with it and you see it, through many things that you look at, through history. And that word is passed on through history and we're still using it today.

JEAN: Oh yeah, right, okay.
(reading) 'As our culture becomes more symbol laden, even symbol bound, the recognition of that distinction becomes still more important.' So they're still trying to find similar things about words and things, right?

MIKE: But you have to remember that there is a distinction between a word and the thing it symbolizes. Okay. So that paragraph means that you have to realize there's a difference between the word and the thing it symbolizes. That would be it, I guess.

LINDA: Yeah.

MIKE: Okay, next paragraph. (reading) 'The ability to symbolize means the ability to call up internal experiences, using only the symbols.'

JEAN: Oh. See, they're trying to figure out internal experience by only using the symbols...for words...

MIKE: Well then...

JEAN: Let's say if you have the words 'pause'. In music, the word 'pause' is symbolized by a little thing like that with a dot in the middle. To try to do words by just symbols.

MIKE: Oh, right. And 'therefore' is done by a triangle of dots. I don't know if you've taken it in science or math...

JEAN: Yeah.

JEAN: Okay.
(reading) 'The answer, semanticists reply, is written throughout history and through much of our daily lives, in which we seek after, ah, purchase, love, fight, and sometimes die for 'words''. So in other words the semanticists, after they have come to a conclusion, it's written throughout history.

The students dare to offer their ideas, to reveal themselves through language. Theirs is a spontaneous flow, and an enthusiasm to solve what must have been a less than interesting problem. It is doubtful that such spontaneity and openness would have been evident in a large, teacher-directed group discussion, where the focus is on the teacher's questions, and where the students tend to participate by replying to the teacher.

Good conversation prevails. The students take turns, proposing directions for the discussion, and responding to each other. Each speaker acts as a catalyst; what one person says seems to spark off discovery in the others and that, embodied in further speech, forms a starting point for somebody else. Together, the students do more than they could do singly. Each member of the group constantly reinforces the others. They bring together much more experience than any one student would have alone. Jean tacitly acknowledges the superior academic ability of the other students. Yet she brings in her own past experiences, revealing her knowledge of musical terms, thus helping interpret and bring understanding to a difficult concept. Similarly, Mike helps the others deal more easily with the term 'symbolism'.

Through use, vocabulary is internalized

In the verbal interchange, the talk is a "a fusion of telling and finding out". What one person says leads to discovery in another. Learning with each other, they find out what has not been told. As well, through use and reuse of difficult terminology, the vocabulary of the article

becomes internalized for the student. Note, for instance, the way in which Mike has internalized the word, 'semanticist' and the ease and correctness with which he uses it. In later conversation with the teacher he revealed that, prior to reading the article, he had never seen nor heard the word.

Rather than refer to authorities, students gropetoward meaning

James Britton writes of monitored student group talk, "Through talk, they nudged each other; groping in their own and the others' minds, they did turn some of the unfamiliar into the familiar,...working upon the representation to make it more coherent, and becoming more experienced people in the light of other people's experience as well as their own."[5] From our observations, we note that this groping seems a more natural way of arriving at meaning than does the consultation of authorities. Although there were dictionaries in the seminar room in which the students engaged in their discussions, in no instance were they used. Rather, the students were willing to accept the usages of others even when they were disturbed by them. This causes some confusion but in the end an accurate use of the terminology is achieved. The discussion of the meaning of the word 'sophisticated' is an example.

MIKE: You could read the third paragraph.

LINDA: 'A more sophisticated approach to language — and this is what semantics is all about — can afford to assume very little.'

---

5. Britton, James, Language and Learning (London, Allen Lane the Penguin Press, 1970).

JEAN: Okay.

MIKE: Semantics. What does that mean? Word order or one word meaning...

JEAN: It says in here...

NORM: It's a study of words.

JEAN: It's a study of words.

MIKE: A study of word meaning then.

NORM: Yeah.

MIKE: Ah.

JEAN: So then sophisticated means, ah...

MIKE: ...high class approach to lang...

JEAN: to language. Right. And this is, ah, what semantics is all about. Right? See, it's the study of words and, ah, high class people take the different ways from low class people.

MIKE: Okay.

JEAN: Okay?

MIKE: I guess. Humph!

JEAN: And, ah, he's, he's just comparing it to high class and low class people.

MIKE: No, he's not.

JEAN: Yes, he is.

MIKE: When they say high class it doesn't mean high class people.

JEAN: Well, sophisticated, then.

LINDA: They're talking about sophisticated language.

JEAN: Right.

LINDA: And not about people.

JEAN: Riiiiight. Ha, ha. Sophisticated language to sophisticated people. Okay. Well, read the third one, Norm. Or the fourth one.

The apparent non participant might still be participating

It is interesting that in the above passage Linda, who says very little generally and who speaks quietly when she does speak, has been following the discussion carefully and provides the key to the definition of 'sophistication'. It may well be that students who don't appear to be part of the discussion are really participating quite actively.

Word analysis sometimes leads to confusion

In the following passage Jean attempts some remarkable definitions for the word 'duality'.

MIKE: ...Okay. Next sentence.

NORM: (reading) 'Semantics, which is the study of words and things, usually begins with that assumption of duality.'

JEAN: What's duality?

LINDA: Mmm, Humph.

NORM: You know, like...

MIKE: Oh yeah, dual is two. Two.

JEAN: Right. Two fighting...

NORM: Like...

MIKE: So, oh, the two things usually correspond to each other, I guess...

JEAN: Right. Yeah, yeah.

MIKE: Okay. So, semantics, like...They're just saying what it is, I guess.

JEAN: Which is 'the study of words and things usually begins with the assumption of duality'. So like if they take a word that they've never heard before and they take another word that they think might be the same as that word that they've never known before.

LINDA: No. The words aren't the same that they're talking about. It's together. You know, they mean the same thing.

MIKE: Yeah, like two words mean the same thing. Like, ah...

JEAN: Like two and too.

MIKE: No, they don't mean the same thing. What's one? Ah... Blackboard duster and blackboard cleaner would be the same thing.

JEAN: Or blackboard slate.

NORM: In other words, they're just...synonyms.

MIKE: Right. Yeah, that's it. Synonyms.

JEAN: Okay, okay. Next one! 'The distinction...'

According to Goodman[6] reading competence depends on the successful processing of grapho-phonic, syntactic and semantic information. Jean has no difficulty with grapho-phonic or syntactic processes (Listening to her oral reading would convince one of her competence) but discussion reveals that she has real problems with semantic considerations. Luckily, other members of the group are able to help her out of her confusion. It seems reasonable to suppose that, left alone, she would either read some wonderfully weird meanings into the text or bog down in frustration.

---

6. Goodman, K., Reading, Process and Programme (Champaign, National Council of Teachers of English, 1970, p. 27)

Unfinished Business

This is the way the discussion of "From Experience to Symbol" ends.

LINDA: Now we know. Now what's the whole thing?

JEAN: The whole thing is different people trying to work out a similarity between words and symbols and the nonverbal world.

MIKE: Like semanticists are wanting...

JEAN: ...linguists and psycholinguists...

MIKE: No, the semanticists are wanting everybody to see something as somebody else sees it. But, you cannot do that...

JEAN: Trying to find similarity...

MIKE: Well, say, just on an average, a mark, like a 'C'. He wants everybody to think it is average, not good or bad. But, of course, we've already had our own experiences and attitudes towards things like that, and it would take a hypnotist to change however we feel on something to everybody meaning the exact same thing. For an example, how do you feel about a C for a mark? Or, B? Say a B! How do you feel about that for a mark? Do you think it's good, bad, or average? For you.

NORM: Average.

MIKE: What about you?

JEAN: Mmmmm...good.

MIKE: What about you?

LINDA: Average.

MIKE: Okay. I'd say that would be bad for me. Like each person thinks that it means different things to them. And therefore you...

JEAN: Ohoo, Mr. Brain here...

MIKE: Well, I've got an 83 average...(laughs) Anyway, ah...it just depends on however you feel about something.

JEAN: Okay. That's it.

At this point the discussion, which has lasted about twenty minutes, ends.

The group decides that it will review the whole article and make some general statements about it. Linda's question, "Now what's the whole thing?" does not seem to be satisfactorily answered as Jean ends the discussion with "That's it!" It would seem that the illustration presented by Mike sidetracks the group and that they lack the ability to understand that they have not answered Linda's question and completed the task. It might also indicate that there is a limit to the length of time these students are willing to discuss a difficult piece of writing on such a topic. It seems to be time for the teacher to enter the conversation to move it toward completion.

Enter the teacher

Here is an exerpt from a discussion by the same group of students on Yeat's poem, The Second Coming. In this case the students have finished their discussion amongst themselves and the teacher has joined the group, not so much as an authority who will give the correct interpretation to the poem, but as someone whose job it is to reaffirm the decisions of the students when they are uncertain, to question their conclusions when he has doubts about them, and to offer opinions when the students solicit them.

TEACHER: What general conclusions did you come to?

MIKE: We said a lot but...in general...

NORM: Well, in general we kind of related it to God...The second coming of Christ...and we just took parts and related it to how it was happening to people living on earth.

JEAN: ...Discussed where or what each sentence meant and how it would relate to what's happening now.

TEACHER: Could you find that relationship?

NORM: Some...But not the part about the lion's body and the head of a man.

MIKE: Some parts we could relate to things that were happening today. Other parts that we had, you know...

NORM: We had no idea.

MIKE: ...didn't really understand what the sentences meant. So, we didn't really relate it to anything...

TEACHER: What sentences are you talking about? Anything...

NORM: The part about the lion's body and the head of a man.

LINDA: The part about the desert.

TEACHER: Oh, you didn't get that allusion, eh?

JEAN: No.

NORM: Couldn't understand that.

MIKE: Couldn't fiqure out what that was.

TEACHER: To me...to me it's the sphinx.

JEAN: Yeah, that's what...

NORM: That's what we thought.

MIKE: That's what we said. It's on the tape.

TEACHER: Oh, great. Well...

NORM: How does it relate to the rest of the poem?

LINDA: What does it symbolize?

TEACHER: Well, I don't think he's got a very deep faith in, or hope for, the future, do you?

NORM: No.

TEACHER: And I think it's a symbol of the slouching beast that's coming...God knows what's going to happen.

JEAN: Yeah.

NORM: We thought maybe it's the evil in men.

At least two points emerge in this discussion. One is the desire of the group to have its decisions confirmed. Another is the deference of the students to the authority of the teacher, and their quick acceptance of what he says. Perhaps with repeated discussions they would grow to rely more on their own judgements. It would appear that teacher participation becomes important at some point in small group discussion.

Discussing the discussion

Here the group with the teacher talk about the discussion of The Second Coming.

TEACHER: This is an excessively hard poem, as you can see. Would you have got as much out of reading this alone?

NORM: I don't think so.

MIKE: We wouldn't have got the right meanings. But we got more out of it reading it together than we would have reading it alone.

JEAN: That's right.

TEACHER: Would you have talked about it in this way in a large group?

JEAN: No.

MIKE: No.

LINDA: I don't think so.

NORM: We decided that.

JEAN: Yeah.

NORM: We turned off the tape...

JEAN: Yeah.

NORM: ...and we were talking about it.

TEACHER: I wish we'd got that on tape. That's the kind of thing we wanted to bring out, you know.

NORM: No, we were just saying that in large groups sometimes you feel that if you give wrong answers, everyone's laughing and the teachers are sort of thinking...

MIKE: And they go on to the next student...

JEAN: And you know...

NORM: And the kids laugh.

LINDA: And you interpret it different from what everybody else does and then you're away off the track and then the teacher comes back and says what it is, and you feel...

NORM: Aha! Well, I say!

With this reaction from the group and the evidence revealed in analyzing their talk, can we afford not to have discussions of this nature in our classrooms?

General comment

In these discussions the mood is jocular yet empathic; the students help each other acquire familiarity with the difficult material and there appears to be a natural excitement with regard to their discoveries. Hence, very pertinent values for each member in small group discussion emerge: the

sharing of experience; the insight each gains through the confrontation; the greater comprehension of the written material and the difficult concepts through the informal give and take; the freedom to explore one's own thoughts, as well as those of others in the group; the sparking of further discoveries about each other as well as about the content of the selection; and the consequent building up of confidence leading to ease of participation in ensuing total class discussions.

APPENDIX A

FROM EXPERIENCE TO SYMBOL

"Like anything else of value, language is best used when it is best understood. When misunderstood, language habits can lead to behavior that is at best foolish and at worst tragic.

A common misunderstanding is the assumption that language is neutral, a medium of exchange between the world and man that in no way affects man's behavior. Such an assumption presents language as a process as natural as breathing, something not to be examined very carefully and certainly not to be altered in any but the most superficial ways, such as by increasing a vocabulary or improving pronunciation. When one takes his language for granted, he may logically conclude that everybody else in the world thinks very much as he does, means what he means when he uses a word. Or, if they do not, then the others must be somehow confused, uneducated, peculiar, or simply wrong.

A more sophisticated approach to language — and this is what semantics is all about — can afford to assume very little. The assumption with which we begin this chapter may appear to be eminently sensible, even obvious. But by the conclusion of the chapter we will have reason to modify it as well.

We begin, tentatively, with the assumption that whatever words might be considered, they are definitely something very different from the things they represent. Semantics, which is the study of words, and things, usually begins with that assumption of duality. The distinction has usually been stated in the negative: "the word is not the thing." Linguists and psycholinguists are developing descriptions of the nature of "words," whereas the philosophers originally and the scientists currently have pursued the investigation of "things." Studying the relationship between the two and emphasizing the importance of the distinction is the special province of the semanticists.

Sensible critics (including, perhaps, you) often have been puzzled by a discipline that emphasizes what appears to be so obvious. Who, after all, would assume that "a word" was "the thing" it symbolizes? The answer, semanticists reply, is written throughout history and through much of our daily lives, in which we seek after, purchase, love, fight and sometimes die for "words." As our culture becomes more symbol laden, even symbol bound, the recognition of that distinction becomes still more important.

The ability to symbolize means the ability to call up internal experiences, using only the symbols. Whether one is reading a novel or reading a grade on some term paper, the symbols stimulate some changes in the body

chemistry. For example, if before retiring to bed, you read a ghost story, you may find it difficult to fall asleep immediately. You are not really afraid of ghosts, but your reactions to little marks on paper may affect your behavior in a way you cannot control. Or, if before retiring to bed, you read a textbook, you may find it difficult to stay awake. (Here, of course, we are not talking about the relative merits of ghosts and academics, but about one's attitude toward such symbols.) Or, to take one more common example from the classroom, you might consider the power of your instructor to affect your nervous system just by organizing three lines to form either and A or an F. What has caused the changes are clearly responses to "symbols"; such responses are sometimes called semantic reactions. For more dramatic examples, you might read the literature of psychosomatic medicine or note the power of "suggestion" that a hypnotist can exert on a subject.

Thus the semanticist is interested not only in "words" as different from "things" but even more in the pervasive responses to symbols as opposed to possible reactions to something in the nonverbal world."

Semantics and Communication, Condon, Jr., John C., Macmillan Company, 1966, pp 11-13.

APPENDIX B

THE SECOND COMING

William Butler Yeats

Turning and turning in the widening gyre

MATERIAL REMOVED DUE TO COPYRIGHT RESTRICTIONS

Slouches towards Bethlehem to be born?